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10/577,037	04/24/2006	Atsushi Tashiro	31869-230429	4108

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EXAMINER	
ALBERTALLI, BRIAN LOUIS	

ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/577,037	TASHIRO, ATSUSHI	
	Examiner	Art Unit	
	BRIAN L. ALBERTALLI	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-8 are directed to a "receiving device". With respect to claim 1, the claimed receiving device comprises a need-of-adjustment determining means and an amplitude adjusting means. The specification states (page 32) that the invention "can be also realized by means of software". Thus, the claimed "receiving device" may comprise a need-of-adjustment determining means and an amplitude adjusting means realized solely by means of software. That is, the claimed "receiving device" may include embodiments comprising nothing but software "modules". The same line of reasoning holds true for claims 2-8.

Since claims 1-8 encompass embodiments directed to collections of software, claims 1-8 include non-statutory subject matter.

With respect to claim 9, based upon consideration of all of the relevant factors with respect to the claim as a whole, claim(s) 9 is held to claim an abstract idea, and is/are therefore rejected as ineligible subject matter under 35 U.S.C. 101. The rationale for this finding is explained below:

There is insufficient recitation of a machine or transformation. While claim 9 recites a "transmission unit signal" sent from a "sending end", there is no requirement that the claimed acts of determining whether or not an amplitude adjustment needs to be made and transparently passing the signal waveform or performing predetermined amplitude adjusting processing are implemented by a particular machine. Furthermore, while the claim additionally recites a need-of-adjustment determining means and an amplitude adjusting means, as indicated above, these "adjusting means" may be realized solely by means of software. Thus, it could not be said that the recitation of a need-of-adjustment determining means and an amplitude adjusting means sufficiently ties the method to a particular machine implementation.

For these reasons, claim 9 is held to claim an abstract idea.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "a second determination unit" in line 16 of the claim. There is insufficient antecedent basis for this limitation in the claim because claim 3 depends from claim 1 and no "first determination unit" has been established in claim 1.

Claim 4 recites the limitation "a third determination unit" in line 16 of the claim. There is insufficient antecedent basis for this limitation in the claim because claim 3 depends from claim 1 and no "first determination unit" or "second determination unit" has been established in claim 1.

Claim 5 recites the limitation "a fourth determination unit" in line 16 of the claim. There is insufficient antecedent basis for this limitation in the claim because claim 3 depends from claim 1 and no "first determination unit" or "second determination unit" or "third determination unit" has been established in claim 1.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoder (U.S. Patent 5,586,126).

In regard to claim 1, Yoder discloses a receiving device for receiving a transmission unit signal (Fig. 10) that is sent from a sending end and accommodates a result of dividing, the result of dividing being obtained by quantizing a value based on relative differences between a plurality of sampling values having temporal prior-posterior relationship therebetween, and dividing data produced in a time series in accordance with a result of the quantizing (difference values of sampled and quantized

waveforms, see Figs. 11 and 12 and column 6, lines 20-43), at the sending end, the receiving device comprising:

a need-of-adjustment determining means which determines whether or not an amplitude adjustment needs to be made in accordance with a value of an amplitude of a signal waveform indicated by a decoding result of the produced data accommodated in the transmission unit signal (sample amplitudes are read from a storage device and the difference values between samples are calculated and compared to a maximum difference value, column 10, lines 48-52); and

an amplitude adjusting means which transparently passes the signal waveform when the need-of-adjustment determining means determines that the amplitude adjustment does not need to be made, and performs predetermined amplitude adjusting processing to pass the signal waveform when the need-of-adjustment determining means determines that the amplitude adjustment needs to be made (if the difference value is not greater than the maximum difference value, the amplitude is not adjusted, otherwise, if the difference value is greater than the maximum difference value, the sample amplitude is adjusted, column 10, lines 52-62).

In regard to claim 9, Yoder discloses a receiving method for receiving a transmission unit signal that is sent from a sending end and accommodates a result of dividing, the result of the dividing being obtained by quantizing a value based on relative differences between a plurality of sampling values having temporal prior-posterior relationship therebetween, and dividing data produced in a time series in accordance

with a result of the quantizing (difference values of sampled and quantized waveforms, see Figs. 11 and 12 and column 6, lines 20-43), at the sending end, the receiving method comprising the steps of:

determining whether or not an amplitude adjustment needs to be made in accordance with a value of an amplitude of a signal waveform indicated by a decoding result of the produced data accommodated in the transmission unit signal, by a need-of-adjustment determining means (sample amplitudes are read from a storage device and the difference values between samples are calculated and compared to a maximum difference value, column 10, lines 48-52); and

transparently passing the signal waveform when the need-of-adjustment determining means determines that the amplitude adjustment does not need to be made, and performing predetermined amplitude adjusting processing to pass the signal waveform when the need-of-adjustment determining means determines that the amplitude adjustment needs to be made, by an amplitude adjusting means (if the difference value is not greater than the maximum difference value, the amplitude is not adjusted, otherwise, if the difference value is greater than the maximum difference value, the sample amplitude is adjusted, column 10, lines 52-62).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kawama (U.S. Patent 5,506,934), Hara (U.S. Patent 5,313,472), Eastmond (U.S. Patent 4,975,657), Moriya et al. (U.S. Patent 7,337,112), Jelinek et al. (U.S. Patent 7,693,710), and Miller et al. (U.S. Patent 4,611,342) disclose additional amplitude adjustment techniques.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN L. ALBERTALLI whose telephone number is (571)272-7616. The examiner can normally be reached on Monday-Thursday, 8 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BLA 9/12/10
/Brian L Albertalli/
Primary Examiner, Art Unit 2626